

U.S. Patent Application No. 09/630,121
Request for Reconsideration dated July 29, 2003
Reply to Office Action of April 29, 2003

REMARKS

Reconsideration and continued examination of the above-identified application are respectfully requested.

At page 2 of the Office Action, the Examiner withdraws the finality of the Office Action mailed January 14, 2003 in view of new rejections. Furthermore, the Examiner asserts that the Amendment filed April 11, 2003 has been entered.

At page 2 of the Office Action, the Examiner rejects claims 7-21, 31-33, and 37-53 under 35 U.S.C. §103(a) as being unpatentable over Nelson (U.S. Patent No. 6,324,809 B1) in view of Nishibori (U.S. Patent No. 5,869,138) and further in view of Andres (U.S. Patent No. 5,553,427). With respect to Nelson, the Examiner, for the most part, provides the same reasoning for rejecting the claimed invention as in the previous Office Action dated January 14, 2003. The Examiner then asserts that the abstract and Figure 1 of Nishibori '138 show printing a wood grain pattern on a background colorant coating on a core with a clear protective top coat, wherein the core contains thermoplastic resin. The product is used as a wood board substitute flooring. With respect to Andres, the Examiner, for the most part, provides the same reasoning as in the previous Office Action dated January 14, 2003. The Examiner then asserts that it would have been obvious to one of ordinary skill in the art to print directly on the plank of Nelson instead of using a printed overlay in order to save the expense of construction of the overlay and provide a realistic wood grain pattern. The Examiner also asserts that it would have been obvious to use cavities and feet in the planks of Nelson in view of Nishibori '138 in order to lower the weight and amount of material used in the core and to raise the planks off of the subfloor for the purposes of insulating. Furthermore, the Examiner asserts that Nelson appears both explicitly and implicitly to teach

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rectangular planks with no cupping. The Examiner therefore takes the planks of Nelson as modified by Nishibori '138 to be equivalent to the planks of the claimed invention. The Examiner also takes the background colorant layer of Nishibori '138 as being part of the final printed pattern. Therefore, the Examiner concludes that the planks of Nelson as modified by Nishibori '138 are equivalent to the planks of the claimed invention. For the following reasons, this rejection is respectfully traversed.

Claim 31 is directed to a thermoplastic plank having a core comprising at least one thermoplastic material, a printed design on the top surface of the plank, and at least one protective coating on top of the printed design. Claim 47 is directed to a floor covering forming a floating surface, wherein the floor covering has a plurality of thermoplastic planks, and each plank has a core comprising at least one thermoplastic material, a printed design on the top surface of the core, and a protective layer on top of the printed design. Claim 51 is directed to a plank as in claim 31, wherein no backing layer is adjacent to a bottom surface of the core. Claim 53 is directed to a plank as in claim 31, wherein at least a bottom surface of the core is thermally treated.

Nelson relates to a core for use in laminate floorings which does not include a printed design on the top surface of the core. Nelson requires a laminate on the top and on the bottom of the core. Nelson also describes the use of a decorative laminate on top of a core. Nelson does not teach or suggest a protective layer affixed to a top surface of a print layer that is affixed to a top surface of a core, and no backing layer adjacent the bottom surface of the core, as recited in independent claim 51 of the present application. Furthermore, the claimed invention, as recited in claim 31, relates to a printed design directly on the top surface of the core and not a decorative laminate on top of the core as suggested in Nelson.

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Additionally, Nelson does not teach or suggest using the surface coverings described therein as a floor covering forming a floating surface, as recited in claim 47 of the present application. Contrary to the Examiner's assertions, Nelson further does not teach or suggest the absence of a backing layer. Nelson is directed to an article for use as a surface covering, wherein the article has a central core and a decorative layer on both the upper and lower surfaces of the core. The teachings of a reference must be considered as a whole. Nelson discloses and exemplifies in the specification and figures the use of two decorative layers, one on top and one below the core. Thus, Nelson as a whole requires the use of two decorative layers. The claims of Nelson even show the necessity of having a surfacing material on both the upper surface and lower surface and claims 2, 3, 5, and 6 of Nelson essentially explain the language set forth at column 2, lines 51-65. It is clear that the upper and lower decorative layers must be present, and they can be the same or different. The figures of Nelson further show the necessity of having an upper planar decorative surface and a lower decorative surface. Each of the figures shows these decorative surfaces. Even the abstract of Nelson shows the necessity of having the upper planar decorative surface and a lower planar surface. Clearly, one skilled in the art reading Nelson would find only a teaching and only a suggestion of a surface covering with a decorative surface located on both the upper surface and the lower surface of the central core. No other options are taught or suggested in Nelson. The language specifically relied upon by the Examiner merely states that the upper surface and lower surface can have different decorative layers or the same decorative layers but there is no language in column 2 that states that the decorative surface on the lower surface of the central core is optional. It is clearly mandatory in all embodiments of Nelson. Also, it is known to one of ordinary skill in the art to place a backing layer on a core to reduce curl

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and/or warping of a product such as a plank. Products made as known in the art without a backing layer on the bottom layer surface of the core demonstrate an unacceptable curl or warp. Thus, one of ordinary skill in the art would understand Nelson as showing the need to use a backing layer to reduce curl or warp, as known in the art. Nelson further does not teach or suggest thermal treatment of the core. Contrary to the Examiner's assertions, Nelson does not implicitly or explicitly state that no cupping of the planks described therein occurs. Should the Examiner choose to rely on his statement, the applicants again request a showing of where or how Nelson teaches an absence of cupping when it is known to one of ordinary skill in the art that some amount of cupping occurs, particularly at low humidity, when a flooring product does not have a backing layer and/or is not thermally treated.

Nishibori '138 relates to a method for forming a pattern on a synthetic wood board. The synthetic wood board is essentially a wood particle board, and not a thermoplastic plank. See col. 2, lines 25-30. The cores of Nelson and Nishibori '138 are different. The Examiner cannot simply substitute different cores and expect the same outcome. According to columns 7 and 8 of Nishibori '138, wooden grain patterns are directly printed by role print, flexographic printing on the surface on which the blurred wooden grain pattern is formed by the standing process. Furthermore, according to column 8, lines 20-25, a transparent paint such as a clear lacquer or matting agent is coated on the printing surface of the wooden grain pattern on the synthetic wood board and dried to a finished product. According to Nishibori '138, the finishing coat can be aminoalukid, lacquer, polyester, polyurethane or the like. Nelson does not provide any option to remove the laminate layer and one cannot simply substitute Nishibori for Nelson's layer. The two structures are different.

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Andres relates to a siding with a completely different design. Andres is directed to a plastic extrusion that does not have a base layer. Also, Andres is not directed to forming a decorative print on a surface. Furthermore, the extrusion of Andres is fixed to a subfloor and is not a floating surface as set forth in claim 47 of the present application. Additionally, Andres does not cure the deficiencies of Nelson or Nishibori '138 with regard to thermal treatment of the core. Thus, Nelson in view of Nishibori '138 and further in view of Andres does not teach or suggest the subject matter of claims 31, 47, 53, and claims dependent therefrom. Accordingly, the rejection under 35 U.S.C. §103(a) over Nelson in view of Nishibori '138 and further in view of Andres should be withdrawn.

At page 4 of the Office Action, the Examiner rejects claims 31, 47, 51, and 53 under 35 U.S.C. §102(a) and (e) as being anticipated by Nishibori '138. According to the Examiner, Nishibori '138 shows a plank made of a thermoplastic resin with a printed pattern on the core and a top coat on the printed pattern. The Examiner takes the colorant coating as being part of the printed pattern design since the color forms a visible part of the wood grain pattern and therefore the printed pattern design is taken as being on the top surface of the core. The Examiner also asserts that Nishibori '138 shows boards with no type of cupping. The Examiner therefore takes the boards of Nishibori '138 to be equivalent to the heat treated planks of the claimed invention. Furthermore, according to the Examiner, no backing layer is taught on the bottom of the core of Nishibori '138. For the following reasons, this rejection is respectfully traversed.

As stated above, a wood particle board fundamentally differs from a thermoplastic plank. Even Nishibori '138 identifies the product as a synthetic wood board. Also, none of the wood board of Nishibori '138 is thermally treated. Accordingly, the rejection should be withdrawn.

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At page 5 of the Office Action, the Examiner rejects claim 53 under 35 U.S.C. §103(a) as being unpatentable over Nishibori '138 in view of Nishibori '900 (U.S. Patent No. 4,610,900). According to the Examiner, Nishibori '138 shows a printed pattern on a thermoplastic core. The Examiner then asserts that Nishibori '900 shows thermal treatment of a thermoplastic core after molding in order to resist deformation of the core over time. The Examiner then concludes that since Nishibori '900 shows that heat treated thermoplastic boards reduce deformation, it would have been obvious to one of ordinary skill in the art to heat treat the board of Nishibori '138 in order to reduce deformation over time. For the following reasons, this rejection is respectfully traversed.

Claim 53 of the present application relates to a thermoplastic plank including a core having at least one thermoplastic material, wherein the core has a top surface, a bottom surface, and opposing side; a printed design on the top surface of the core, wherein the printed design has a top surface and a bottom surface; and a protective layer affixed to the top surface of the printed design, wherein at least the bottom surface of the core is thermally treated.

As stated above, Nishibori '138 relates to a synthetic wood particle board and not a thermoplastic plank. Similarly, Nishibori '900 relates to wood particle boards. Also, Nishibori '900 relates to a method of eliminating the residual stress by subjecting the molded products containing cellulose-base aggregate, especially the resinous skin layer thereof, to re-heating, curling, and sanding or jetting treatments under predetermined conditions. Nishibori '900 does not teach or suggest a protective layer attached to the top surface of the printed design. In fact, Nishibori '900 does not teach or suggest a printed design at all. Therefore, one skilled in the art by reading Nishibori '138 in view of Nishibori '900 would at best heat the synthetic wood board without

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application of a pattern on a synthetic wood board. Accordingly, the rejection under 35 U.S.C.

§103(a) over Nishibori '138 in view of Nishibori '900 should be withdrawn.

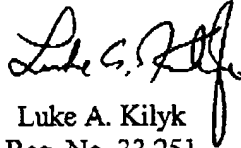
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CONCLUSION

In view of the foregoing remarks, the applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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